



TE WHATU ORA INTERNSHIP



By Christine Viernes

OVERVIEW OF THE ORGANISATION

- Hutt Hospital Department of Respiratory Medicine is a crucial component of Te Whatu Ora.³
- Specialises in treating lung and breathing-related conditions, including bronchiectasis, asthma, chronic obstructive pulmonary disease (COPD), and more.³
- Offers outpatient and inpatient care.³



Location of Internship Placement: Clock Tower Block at Hutt Hospital

THE PROJECT

- Collected and analysed data from patients (aged 16 - 92) who attended the multidisciplinary bronchiectasis clinic from January 2016 - August 2020, including bronchiectasis screening tests from electronic health records.
- Supported the journal article: **'Can we reduce the number of laboratory tests when assessing the cause of bronchiectasis?'**
- Gained clinical experience shadowing medical professionals in the respiratory clinics and at the Kokiri Marae Clinic, enhancing research and patient-centred care insights.



WHAT IS BRONCHIECTASIS?

- Lung disease characterised by the gradual expansion of airways due to persistent chronic inflammation/ infection.²
- Leads to irreversible lung damage and recurrent chest infections.
- Disproportionately affects Māori and Pasifika people.¹
- Often, the cause is unknown (idiopathic bronchiectasis).²

STUDY RATIONALE

- To evaluate the efficacy of laboratory tests conducted at the Respiratory Department for bronchiectasis diagnosis and consider a stepwise approach to test selection.
- Aims to enhance patient health outcomes and improve healthcare efficiency through data analysis.

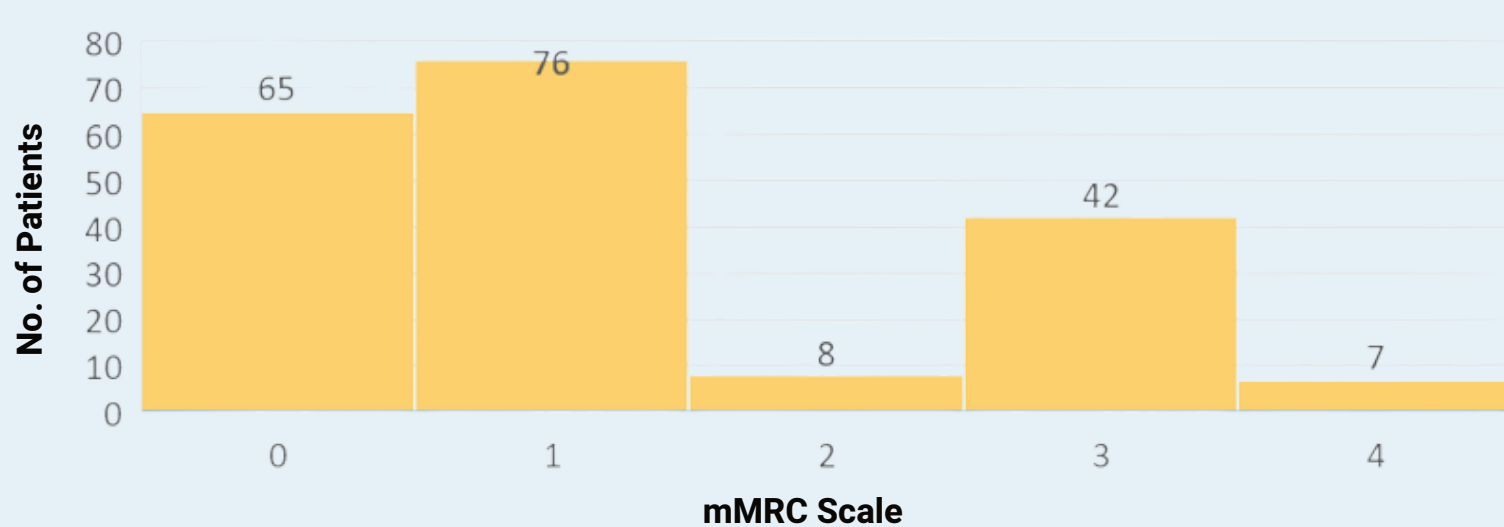
PATIENT DATA ANALYSIS

Analysed 200 patients using the following factors:

- Shortness of Breath
- Fatigue and Quality of Life
- Lung Damage
- Smoking Status
- Aetiology
- Demographics

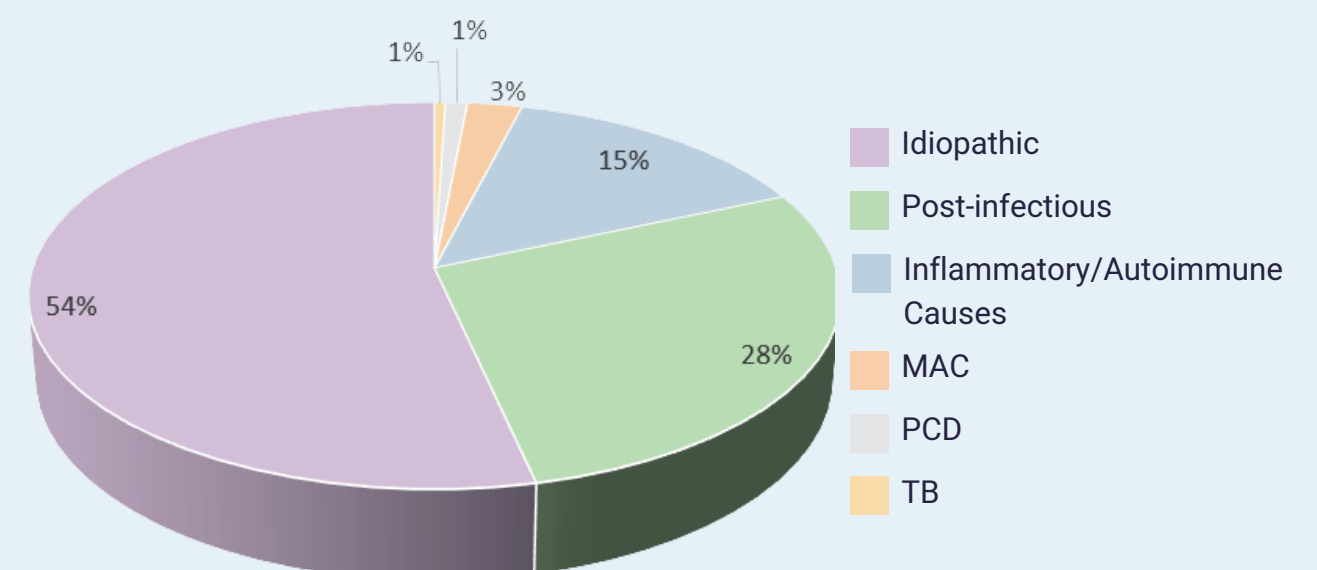
RESULTS

Distribution of Patients by mMRC Scale Scores



Most patients experienced mild breathlessness during brisk walking or uphill activities.

Aetiology Distribution in the Number of Patients with Bronchiectasis



Idiopathic bronchiectasis emerges as the predominant cause, accounting for 54% of the cases within this dataset.

CONCLUSION AND RECOMMENDATIONS

The data highlights diverse patient experiences, emphasising the importance of personalised diagnostic testing and treatment strategies to enhance patient health outcomes and healthcare efficiency. Employing a stepwise approach to laboratory test selection suggests the potential for reducing tests while maintaining diagnostic accuracy in the bronchiectasis clinic. Further research is recommended to refine treatment strategies and enhance bronchiectasis management.

CONTACT INFORMATION



Te Whatu Ora
Health New Zealand
Capital, Coast and Hutt Valley

REFERENCES

1. Blackall, Sean R., Jae B. Hong, Paul King, Conroy Wong, Lloyd Einsiedel, Marc G.W. Rémond, Cindy Woods, and Graeme P. Maguire. "Bronchiectasis in Indigenous and Non-Indigenous Residents of Australia and New Zealand." *Respirology* 23, no. 8 (2018): 743-749. doi: <https://doi.org/10.1111/resp.13280>.
2. *Bronchiectasis Overview*. Lung Foundation Australia. Accessed October 1, 2023. <https://lungfoundation.com.au/patients-carers/conditions/bronchiectasis/overview/>
3. *Respiratory Service*. Capital & Coast District Health Board. Accessed October 1, 2023. <https://www.ccdhb.org.nz/our-services/a-to-z-of-our-services/respiratory-service/>